

REMARKS

In response to paragraph 1 of the Action, an English abstract of DE4332205 is attached.

In reviewing the application documents, it was noticed that the numeral 32d explained in the specification is missing in Fig. 4. Therefore, new Fig. 4 including the missing numeral 32d has been filed.

In paragraph 3 of the Action, claims 1-6 were rejected under 35 U.S.C. 103(a) as being unpatentable over Frantom et al. in view of WO '801.

In view the rejection, claim 2 has been cancelled, and claims 1 and 3 have been amended. Also, new claims 7 and 8 have been added.

As clearly recited in amended claim 1, a motor retractor system of the invention comprises a seat belt; a first winding device attached to one end of the belt and having a motor for winding the same; a second winding device attached to the other end of the belt and having a tension-applying device for always applying a tension to the belt for winding the same; a through-tongue slidably attached to the seat belt; a buckle to be connected to the through-tongue; and a detecting device attached to at least one of the through-tongue and the buckle for detecting a release of the through-tongue from the buckle.

In the invention, the retractor system further includes a control unit electrically connected to the detecting device and the first winding device. Upon detection of the release of the through-tongue from the buckle through the detecting device after withdrawing the seat belt from the first and second winding devices and connecting the through-tongue to the buckle, the control unit actuates the motor of the first winding device to wind the seat belt to the first winding device for only an amount withdrawn from the first winding device.

Namely, in the invention, the seat belt can be freely withdrawn from the first winding device without operation of the

motor, and the motor only winds or retracts the seat belt for the amount withdrawn from the first winding device. In the second winding device, the seat belt can be freely withdrawn, but a tension is applied by the tension-applying device. Thus, after the seat belt is withdrawn for use, the slack is retracted by the second winding device.

In Frantom et al., a safety restraint system includes a seat belt 10, and a seat belt retractor 14 actuated by an electric motor. One end of the seat belt 10 is attached to the retractor 14 and the other end is attached to an anchor bracket 12. When the seat belt is buckled, the control system is operated to snug up the seat belt against the occupant's shoulder and then reverse its direction to provide a predetermined slack.

The system may be used to adjust the seat belt in three points safety system having dual or separate retractors, one for the lap belt and one for the shoulder belt. Namely, two retractors 14, each being actuated by the motor in winding and withdrawing directions, may be attached to the seat belt.

In the invention, the motor retractor system includes the first winding device having the motor for winding the same, and the second winding device having the tension-applying device for always applying a tension to the belt for winding the same. In Frantom et al., the retractor 14 actuated by the motor is attached to one end or both ends of the seat belt for controlling the length of the seat belt. In the invention, the first winding device is actuated by the motor, but the second winding device is not actuated by the motor. In Frantom et al., both ends of the seat belt can be actuated by the retractors with the motors.

Further, in the invention, the seat belt can be withdrawn at any time from the first winding device without using the motor. Namely, the motor or first winding device does not restrict withdrawal of the seat belt, and the motor is not reversible to provide a slack to the seat belt. In Frantom et al., the motor is reversed to provide a slack, i.e. the motor is operated to retract

and withdraw the seat belt. Thus, the retractor with the motor of the invention is different from that of Frantom et al.

In the control unit of the invention, upon detection of the release of the through-tongue from the buckle through the detecting device, the control unit actuates the motor of the first winding device to wind the seat belt to the first winding device for only an amount withdrawn from the first winding device regardless of the amount of withdrawal of the seat belt by the second winding device. In Frantom et al., there is no explanation about the amount of the withdrawal of the seat belt, especially, when two winding devices are used.

Therefore, the features of the invention are not disclosed or suggested in Frantom et al.

In WO '801, a restraint presentation system includes a belt 16 and two tensioning mechanisms or take-up reels 18, 20 attached to both ends of the belt 16. The take-up reel 18 biases a shoulder belt portion 33 within a housing 44 until a stop button 50 comes into contact with a slit 44. The take-up reel 20 biases a lap belt portion 31, coiling the excess lap belt portion 31 within a housing 46. Namely, both ends of the belt 16 are wound by the springs.

In the invention, the first winding device has the motor for winding the belt, and the second winding device has the tension-applying device for always applying the tension to the belt for winding the same. In WO '801, the take-up reels 18, 20 have conventional systems, i.e. springs for biasing. No motor winding system is used in WO '801.

In the invention, the detecting device detects the release of the through-tongue from the buckle. In WO '801, the buckle and tongue are used, but there is no detecting device.

In the invention, the control unit is formed. Upon detection of the release of the through-tongue from the buckle through the detecting device, the control unit actuates the motor of the first winding device to wind the seat belt to the first winding device

for only an amount withdrawn from the first winding device. In WO '801, there is no control unit operated as in the invention.

The features of the invention are not disclosed or suggested in WO '801.

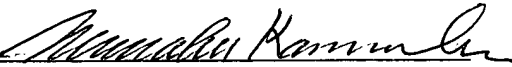
When Frantom et al. and WO '801 are combined, the seat belt with the retractor 14 at one end in Frantom et al. may have a conventional take-up reel 20 at the other end as in WO '801. However, such a combination does not constitute the present invention. Namely, in the invention, the control unit is provided, wherein upon detection of the release of the through-tongue from the buckle through the detecting device, the control unit actuates the motor of the first winding device to wind the seat belt to the first winding device for only an amount withdrawn from the first winding device.

In the invention, also, the seat belt can be freely withdrawn from the first winding device without operation of the motor, and the motor only retracts the seat belt. Even if the cited references are combined, the present invention can not be made. The specific combination of the first and second winding devices with the control unit of the invention are not obvious from the cited references.

Reconsideration and allowance are earnestly solicited.

Respectfully Submitted,

KANESAKA AND TAKEUCHI

By 
Manabu Kanesaka
Reg. No. 31,467
Agent for Applicants

1423 Powhatan Street
Alexandria, VA 22314
(703) 519-9785